



SAW Components

Data Sheet X 7257 M





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X 7257 M

Bandpass Filter

36,125 MHz

Data Sheet

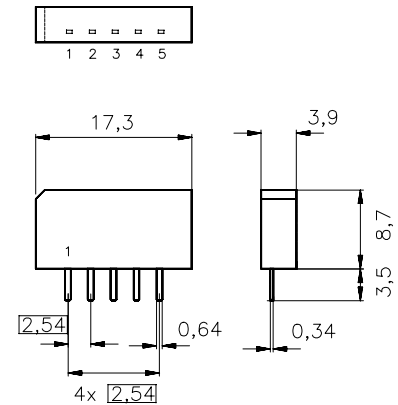
Plastic package **SIP5K**

Features

- TV IF filter
- Switchable between two bandwidths

Terminals

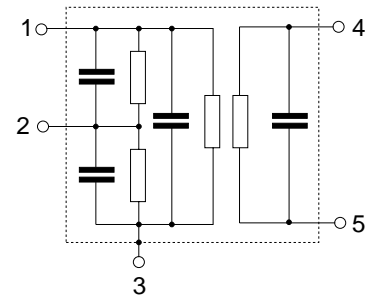
- Tinned CuFe alloy



Dimensions in mm, approx. weight 1,0 g

Pin configuration

- 1 Input
- 2 Switching input
- 3 Chip carrier - ground
- 4 Output
- 5 Output



Type	Ordering code	Marking and package according to	Packing according to
X 7257 M		C61157-A1-A15	F61074-V8067-Z000

Maximum ratings

Operable temperature range	T_A	-25/+65	°C	
Storage temperature range	T_{stg}	-40/+85	°C	
DC voltage	V_{DC}	5	V	between any terminals
AC voltage	V_{pp}	10	V	between any terminals



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Characteristics of channel 1 (switching input pin 2 connected to ground)

Reference temperature: $T_A = 25\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 2\text{ k}\Omega \parallel 3\text{ pF}$

		min.	typ.	max.	
Insertion attenuation	α				
Reference level for the following data	36,125 MHz	20,1	21,6	23,1	dB
Pass bandwidth					
$\alpha_{rel} \leq 3\text{ dB}$	B_{3dB}	—	8,0	—	MHz
$\alpha_{rel} \leq 30\text{ dB}$	B_{30dB}	—	9,5	—	MHz
Relative attenuation	α_{rel}				
	32,32 MHz	-0,2	1,0	2,2	dB
	33,93 MHz	-0,1	1,1	2,3	dB
	32,13 MHz	—	2,8	—	dB
	40,13 MHz	—	3,2	—	dB
Lower sidelobe	25,00 ... 30,90 MHz	34,0	42,0	—	dB
Upper sidelobe	42,00 ... 45,00 MHz	33,0	39,0	—	dB
Reflected wave signal suppression					
1,4 μ s ... 6,0 μ s after main pulse (test pulse 250 ns, carrier frequency 36,125 MHz)		40,0	49,0	—	dB
Feedthrough signal suppression					
1,3 μ s ... 1,2 μ s before main pulse (test pulse 250 ns, carrier frequency 36,125 MHz)		—	50,0	—	dB
Group delay ripple (p-p)	$\Delta\tau$				
	32,32 ... 39,93 MHz	—	60	—	ns
Impedance at 36,125 MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	1,6 \parallel 16,0	—	k Ω \parallel pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	2,4 \parallel 4,3	—	k Ω \parallel pF
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K



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Characteristics of channel 2 (switching input pin 2 connected to pin 1)

Reference temperature: $T_A = 25\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 2\text{ k}\Omega \parallel 3\text{ pF}$

		min.	typ.	max.	
Insertion attenuation	α				
Reference level for the following data	36,125 MHz	20,5	22,0	23,5	dB
Pass bandwidth					
$\alpha_{rel} \leq 3\text{ dB}$	B_{3dB}	—	6,0	—	MHz
$\alpha_{rel} \leq 30\text{ dB}$	B_{30dB}	—	7,7	—	MHz
Relative attenuation	α_{rel}				
	33,59 MHz	- 1,2	0,0	1,2	dB
	38,65 MHz	- 1,2	0,0	1,2	dB
	33,12 MHz	—	2,7	—	dB
	39,12 MHz	—	2,7	—	dB
Lower sidelobe	25,00 ... 32,00 MHz	34,0	40,0	—	dB
Upper sidelobe	40,40 ... 42,50 MHz	27,0	33,0	—	dB
	42,50 ... 45,00 MHz	33,0	39,0	—	dB
Reflected wave signal suppression					
1,4 μ s ... 6,0 μ s after main pulse (test pulse 250 ns, carrier frequency 36,125 MHz)		40,0	50,0	—	dB
Feedthrough signal suppression					
1,3 μ s ... 1,2 μ s before main pulse (test pulse 250 ns, carrier frequency 36,125 MHz)		—	50,0	—	dB
Group delay ripple (p-p)	$\Delta\tau$				
	33,59 ... 38,65 MHz	—	50	—	ns
Impedance at 36,125 MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	1,6 \parallel 17,0	—	k Ω \parallel pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	2,4 \parallel 4,3	—	k Ω \parallel pF
Temperature coefficient of frequency	TC_f	—	-72	—	ppm/K



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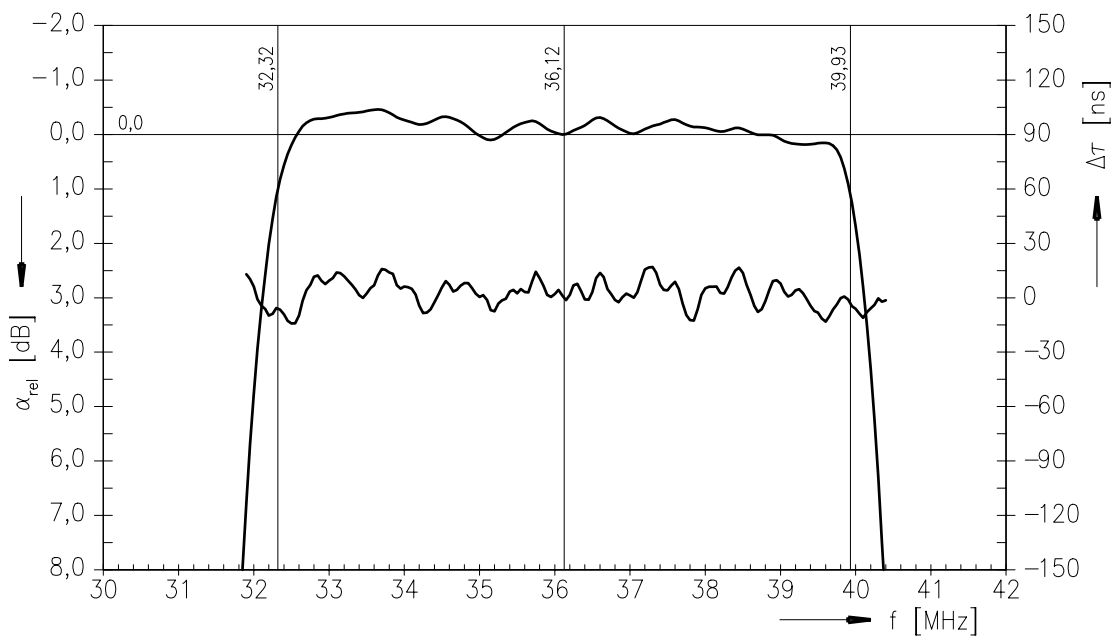
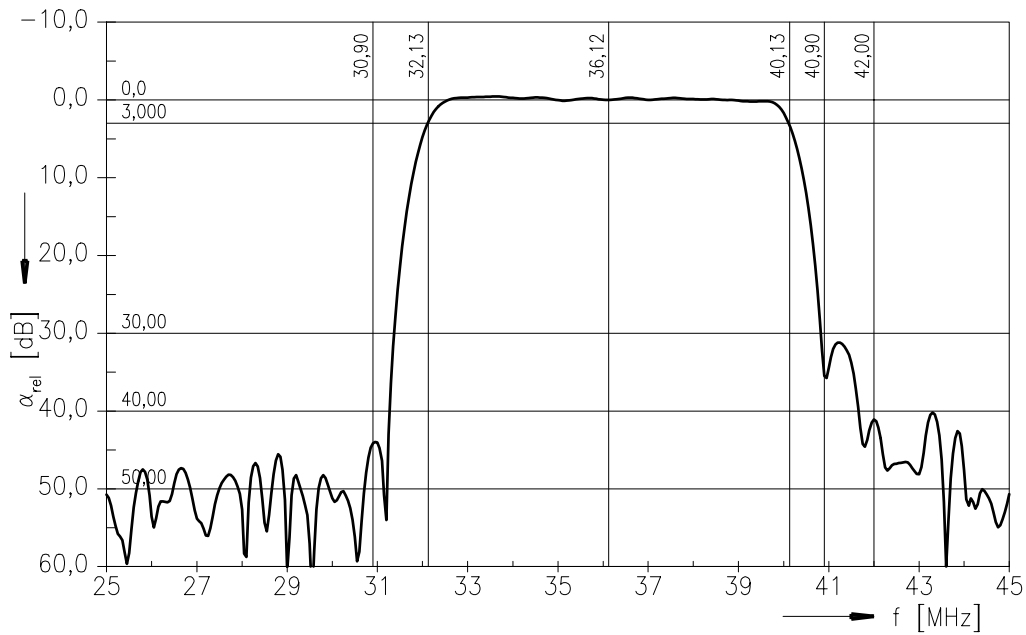
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Data Sheet

Frequency response in channel 1





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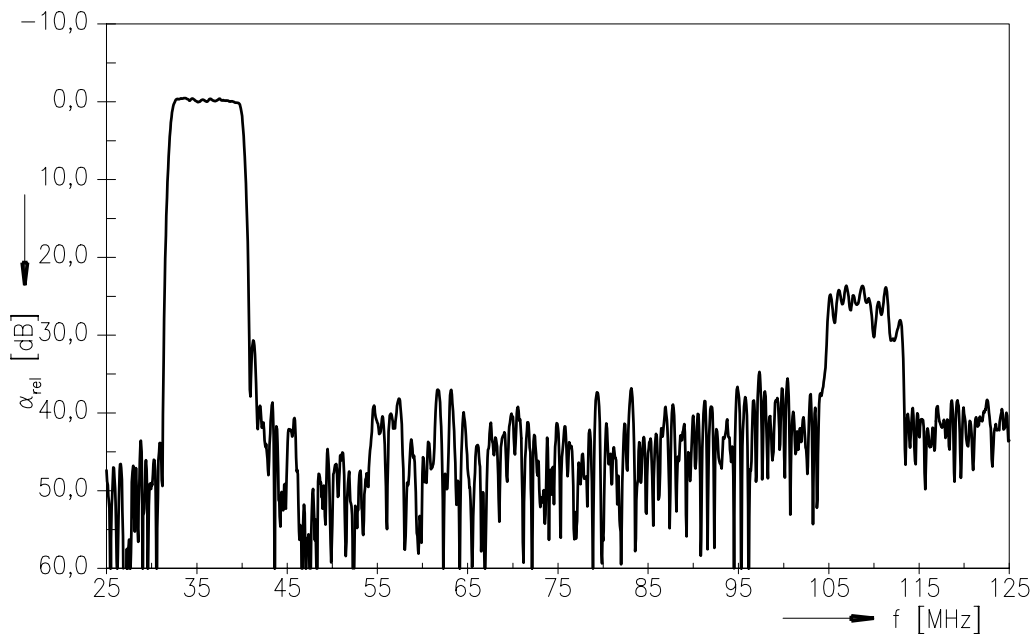
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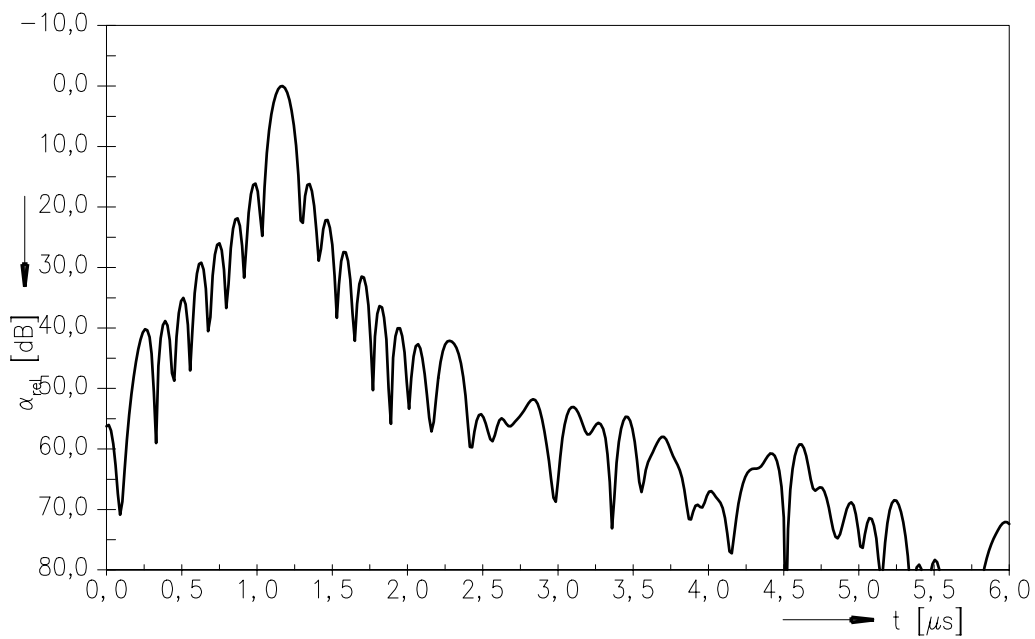
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Frequency response of channel 1



Time domain response of channel 1





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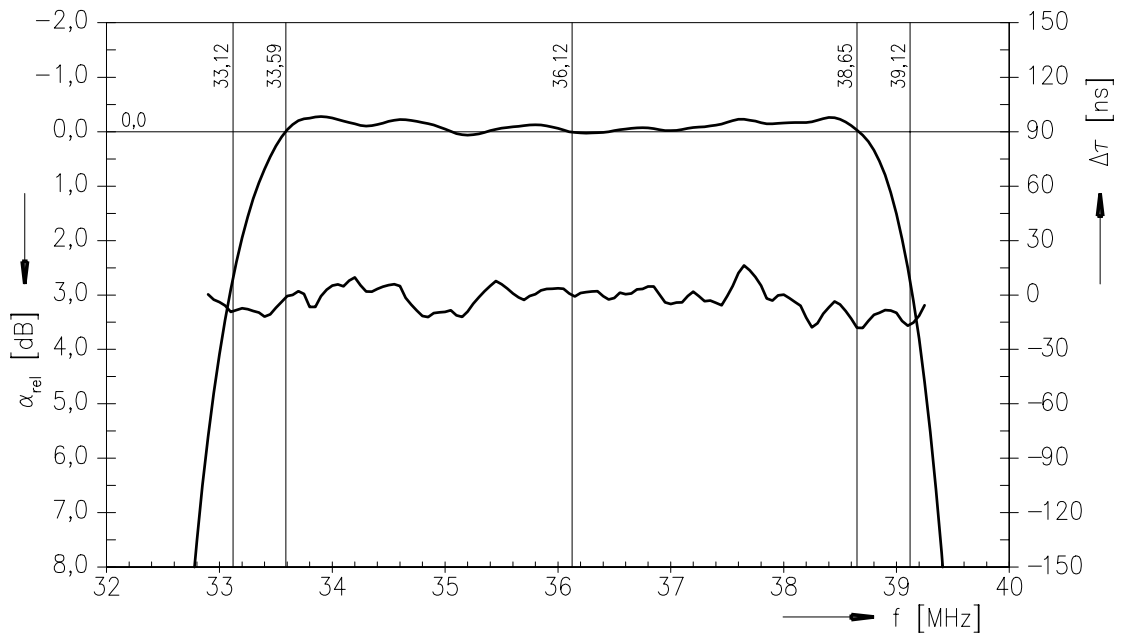
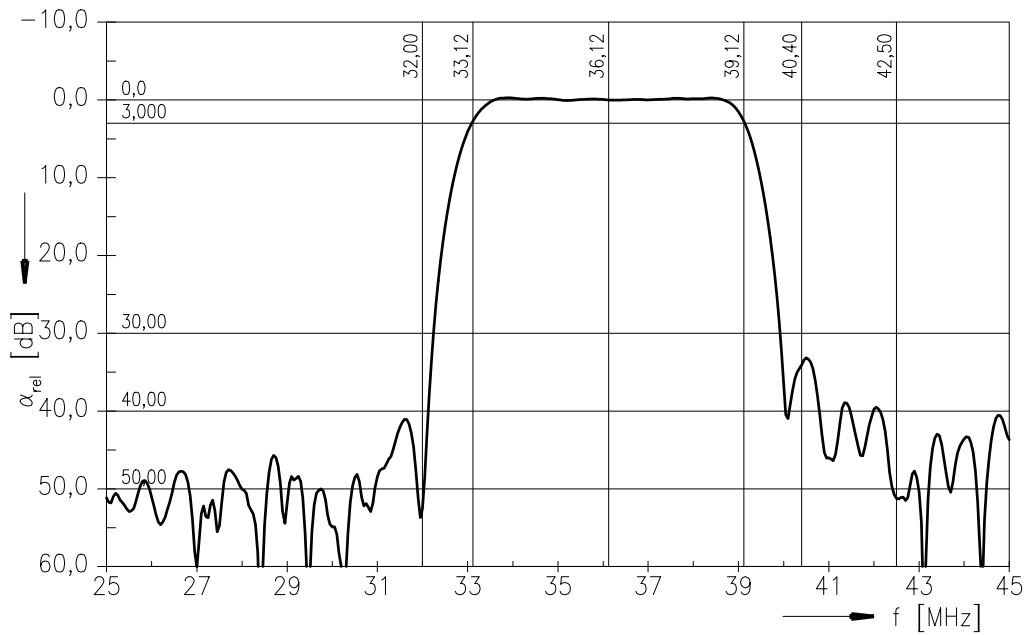
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Data Sheet

Frequency response in channel 2





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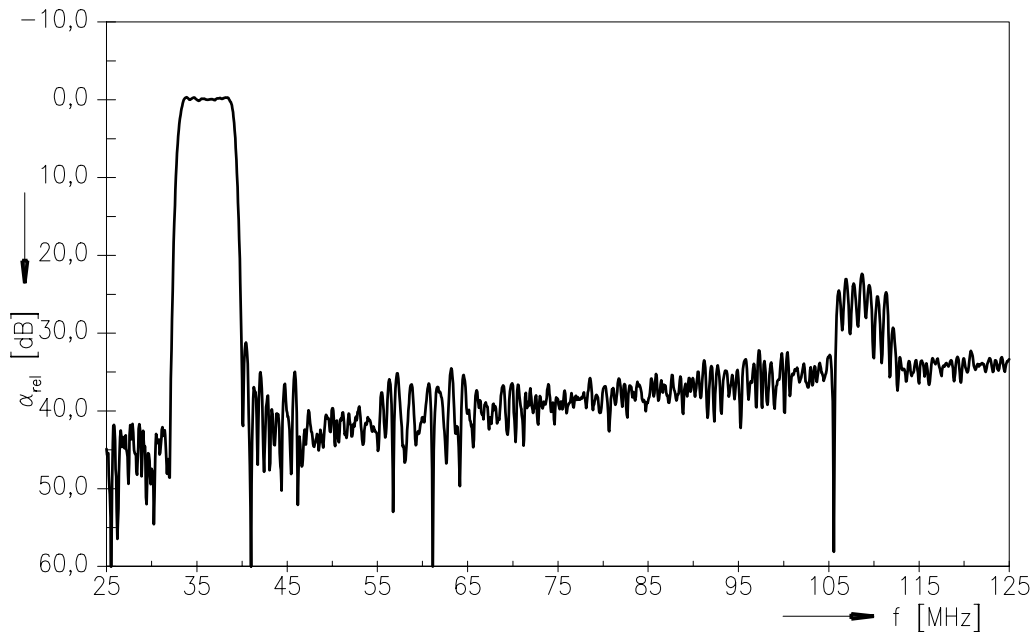
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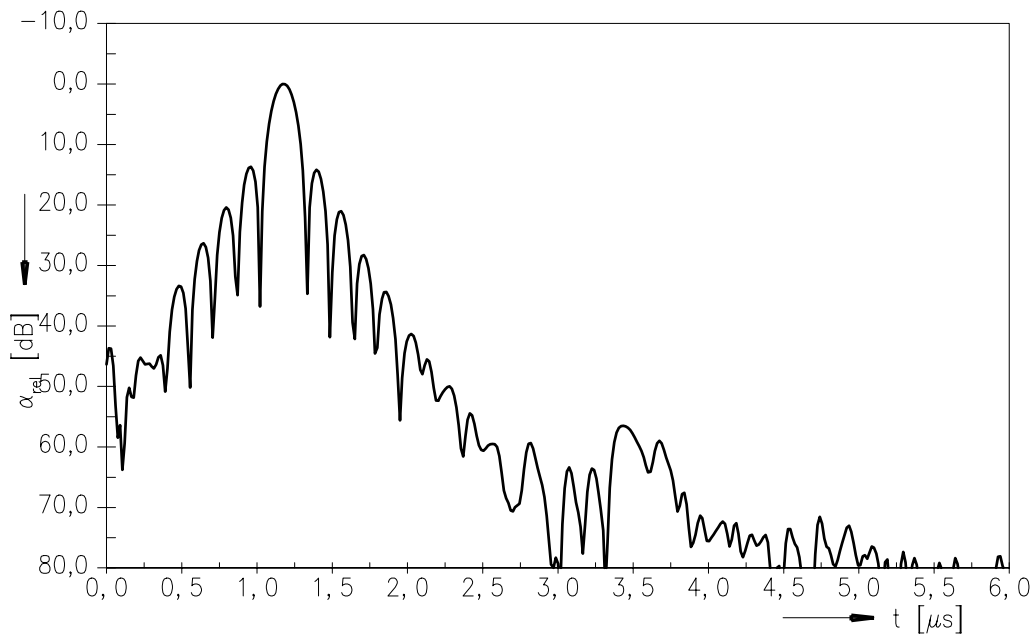
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Frequency response of channel 2



Time domain response of channel 2





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